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**Letter: biologics treatment in Crohn's disease and risk of bowel resection-what about the patients who stop anti-TNF therapy?**

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**Biologics treatment in Crohn's disease and risk of bowel resection: What about the patients who stop anti-TNF therapy?**

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Dear Editor,

In their recent interesting observational cohort study the authors<sup>1</sup> compared the rate of subsequent bowel resection in patients with Crohn's disease (CD) who had stopped anti-TNF therapy before 12 months compared with those continuing for 12 months or longer. They included 1856 patients, 1260 treated with adalimumab and 596 with infliximab. Twelve months after starting therapy, 65% were still receiving anti-TNF, 27% had been taken off the drug and 7% had undergone early bowel resection and were excluded from further analysis. The cumulative proportion of first bowel resection was 25% at 6 years, similar among patients treated <12 months and those with treatment maintenance  $\geq$ 12 months. Hence, based on these data, biologics did not modify the natural history of CD.

The authors tried to explain this surprising result. They hypothesized that the similar surgical rates could be derived from the fact that the cohort maintained on anti-TNF for more than 12 months most likely included patients with the most severe disease type. As this was a register-based study the authors did not have details on why the patients stopped the anti-TNF. The authors reasonably speculated that the patients taken off the drug before 12 months were those who either did not respond to or were intolerant to anti-TNF. Given the relatively low rate of mucosal healing reported with anti-TNF e.g. 28% maintained mucosal healing with infliximab<sup>2</sup> it is unlikely that many patients stopped the anti-TNF within 12 months because they had achieved mucosal healing.

Another possible explanation is that treatment with biologics may often be introduced too late, when structural bowel damage is already evident. To limit this bias, the authors correctly excluded patients who underwent early bowel resection; furthermore, the duration of CD before the start of the anti-TNF affected neither treatment retention nor early bowel resection at 12 months.

They also report that concomitant use of immunomodulators did not impact on risk for resection. We wonder though whether use of immunomodulators or of systemic corticosteroids after cessation of anti-TNF could have impacted (in either direction) on risk for surgery.

Further data about immunosuppressant and corticosteroid use, which might well have been different between early anti-TNF stoppers (who would likely have needed an alternative to anti-TNF) and those who continued, would be interesting to allow further analysis of this intriguing result.

## References

1. Eberhardson M, Söderling JK, Neovius M, Cars T, Myrelid P, Ludvigsson JF, et al. Anti-TNF treatment in Crohn's disease and risk of bowel resection-a population based cohort study. *Aliment Pharmacol Ther* 2017;46:589-598.
2. Chalapranee A, Hazlewood GS, Kaplan GG, Peyrin-Biroulet L, Ananthakrishnan AN. Systematic review with meta-analysis: comparative efficacy of biologics for induction and maintenance of mucosal healing in Crohn's disease and ulcerative colitis controlled trials. *Aliment Pharmacol Ther* 2017;45:1291-1302.